



Final

Radiological Addendum to the Feasibility Study Report for Parcel E

Hunters Point Shipyard San Francisco, California

August 2012

Prepared for:

Department of the Navy Base Realignment and Closure Program Management Office West San Diego, California

Prepared by:

Engineering/Remediation Resources Group, Inc. 115 Sansome Street, Suite 200 San Francisco, California 94104

and

Radiological Survey and Remedial Services, LLC 200 South Virginia, Suite 800 Reno, Nevada 89501

Prepared under:

Naval Facilities Engineering Command Contract Number N68711-05-C-6011 DCN: ERRG-6011-0000-0006.A1

Table 6. Combined Risk for Parcel E Study Areas (continued)

Combined Total Risk ^{a,b}			
Parcel E Area	Radiological Risk	Chemical Risk	Combined Risk ^c
Redevelopment Block MU-	1 ^d		
707 Triangle Area	7E-03	3E-04	8E-03
Redevelopment Block MU-2	2 ^d		
Building 414	4E-04	6E-07	4E-04
Building 506 Site	5E-04	3E-04	8E-04
Building 507 Site	9E-04	9E-05	1E-03
Building 508 Site	2E-04	2E-04	4E-04
Building 520 Site	4E-04	2E-04	6E-04
Building 529 Site	2E-04	2E-04	4E-04
Shack 79 Site	3E-04	8E-05	4E-04
Shack 80 Site	1E-03	8E-05	1E-03
Redevelopment Block MU-3	3 ^d		
Building 701 Site	3E-04	e	3E-04
IR-04	1E-03	3E-04	1E-03
Redevelopment Blocks EO	S-1 through EOS-4 ^f		
Building 509 Site	2E-07	e	2E-07
Building 510/510A Site	2E-05	4E-05	6E-05
Building 517 Site	6E-07	e	6E-07
IR-02 Northwest	2E-05	9E-03	9E-03
IR-02 Central	3E-05	9E-03	9E-03
IR-02 Southeast	7E-03	2E-04	7E-03
Redevelopment Blocks EO	S-1 through EOS-4 (Resid	ential Reuse) ^g	
Building 509 Site	3E-06	e	3E-06
Building 510/510A Site	3E-04	9E-05	4E-04
Building 517 Site	9E-06	e	9E-06
IR-02 Northwest	3E-04	2E-02	2E-02
IR-02 Central	5E-04	2E-02	2E-02
IR-02 Southeast	9E-02	3E-03	9E-02

Notes:

- a The risk results presented in the table represent the highest risk for an individual exposure area within an impacted site and are based upon anticipated reuse. Chemical risk was derived from the Final Revised Parcel E Remedial Investigation Report, Tables I1-18 and I2-18 (Total and Incremental Risk for the Residential Exposure Scenario) and Tables I1-21 and I2-21 (Total and Incremental Risk for the Recreational Exposure Scenario) (Barajas & Associates, 2008).
- b Total excess lifetime cancer risk.
- c Consistent with EPA HHRA guidance, cancer risk results are presented to one significant figure. Accordingly, the combined risk results presented in the table may not equal the sum of the previous two columns; however, the results presented are an accurate representation of the sum of radiological and chemical risk.
- d Risk results are based on residential exposure scenario.



Table 6. Combined Risk for Parcel E Study Areas (continued)

Notes (continued):

- e Chemical risk is not presented because no soil samples were collected in the vicinity of the site, and chemical risk was subsequently not evaluated.
- f Risk results are based on recreational exposure scenario.
- g Although these areas are planned for open space reuse, risk results are presented for the residential exposure scenario to evaluate unrestricted reuse.

EPA = U.S. Environmental Protection Agency HHRA = human health risk assessment

IR = Installation Restoration

-- = not applicable

